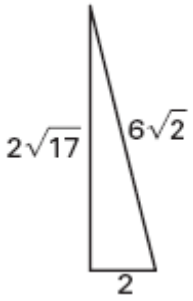
Geometry 9.3 Converse of Pythagorean Theorem (pp 543-5)

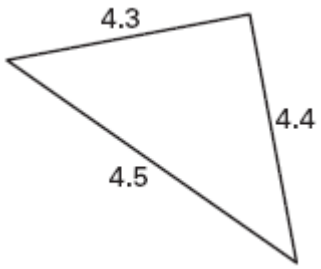
1. What is your name?

Tell whether the triangle is a right triangle.

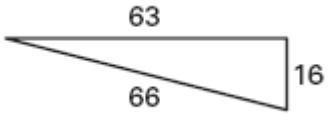
2.



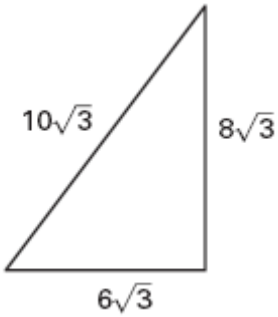
3.



4.



5.



Decide whether the numbers can represent the side lengths of a triangle. If they can, classify the triangle as *right*, *acute*, or *obtuse*.

6. 8, 12 , 18

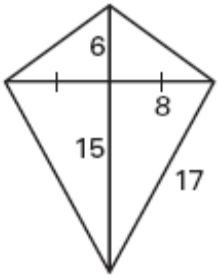
7. $5, 7, \sqrt{74}$

Geometry 9.3 Converse of Pythagorean Theorem (pp 543-5)

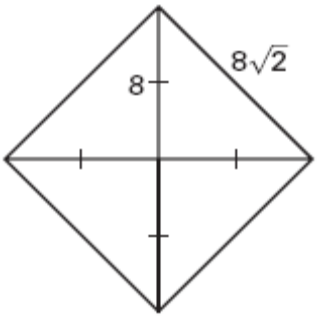
8. $6, \sqrt{15}, 5\sqrt{2}$ **9.** 21, 72, 75

Classify the quadrilateral. Explain how you can prove that the quadrilateral is that type.

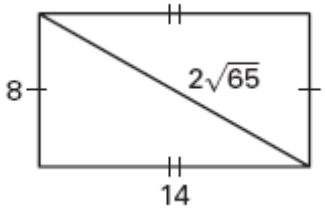
10.



11.

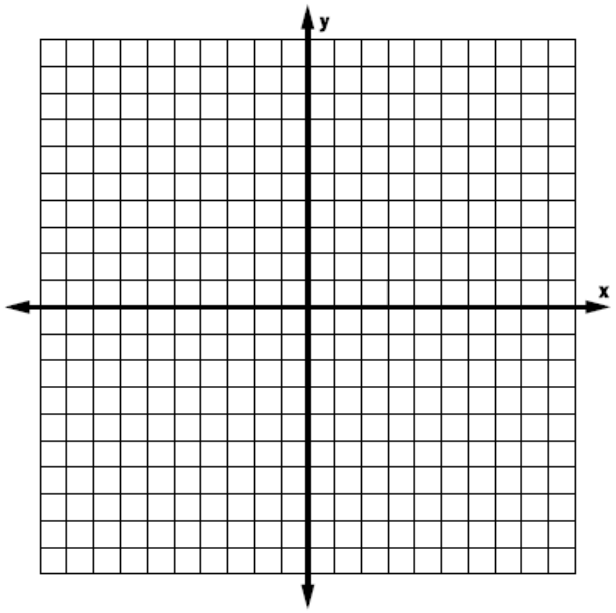


12.

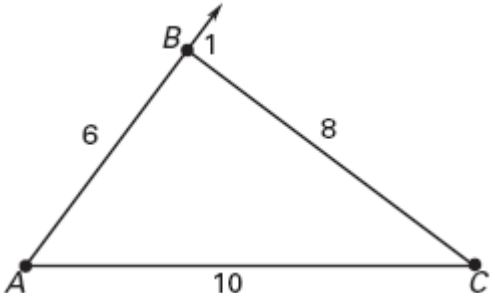


Geometry 9.3 Converse of Pythagorean Theorem (pp 543-5)

13. Quadrilateral *QUAD* has vertices at Q(-5, 2), U(-1, 7), A(4, 3), & D(0, -2). Plot the figure and indicate what type of quadrilateral *QUAD* is. Find the perimeter of *QUAD*.

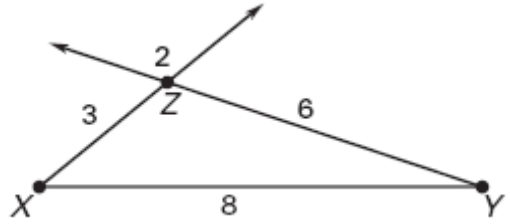


14. If AB = 6, BC = 8 & AC = 10, show that $\angle 1$ is a right angle.



Geometry 9.3 Converse of Pythagorean Theorem (pp 543-5)

15. If XZ = 3, ZY = 6, & KY = 8, show that $\measuredangle 2$ is obtuse.



Review.

Simplify the expression. *(p 799)*

16. $\sqrt{14} \bullet \sqrt{6}$

17. $\dfrac{12}{\sqrt{18}}$

18. $\sqrt{15} \bullet \sqrt{6}$

19. $\dfrac{8}{\sqrt{24}}$

20. In the diagram, $\overrightarrow{PS}$ bisects $\measuredangle RPT$, and $\overline{PS}$ is the perpendicular bisector of $\overline{RT}$. Find the values of x and y.
(Chapter 5 Section 1)